REMARKS/ARGUMENTS

Applicants thank the Examiner for the courtesy of an interview with the undersigned held on March 8, 2005. An Interview summary is separately submitted herewith consistent with the Examiner's summary of interview attached to the subject Office Action.

These remarks are intended to supplement the remarks filed on November 18, 2004 in response to the previous office action. Those remarks dealt fully with two pieces of prior art, namely US Patent No. 5,577,166 to Mizuno and 5,608,841 to Tsuboka, and as such those remarks are hereby incorporated by reference.

US Patent No. 5,625,748 to McDonough shows a topic discriminator for speech recognition systems, executing a method of determining the topic of a conversation. The reference is directed to improving topic discrimination, including the possibility of using confidence scores from a word or phrase spotter. A topic classifier uses the frequency of words or phrases to try to determine the topic of conversation. The classifier can provide different outputs based on a pre-selected set of topics. Thus, it can choose one of a pre-selected set of topics, it can output the presence or absence of a pre-selected topic, or a confidence score that any particular topic from the pre-selected set is present. The frequencies of the words or phrases may be derived by counting or summing confidence scores from the word or phrase spotter. The probability of a word or phrase being present is calculated under the iid assumption and statistical analysis is applied to arrive at a single significant value of the word in relation to the topic. If the single value exceeds a threshold level, the word is deemed to be relevant to the topic. While McDonough may show the use of a single strangeness value valid under the iid assumption to determine whether or not a word is relevant to a topic, it does not show a strength of prediction monitoring device based on the second most likely potential classification of an item. Indeed, such a strength of prediction monitoring device is irrelevant to McDonough since

the reference is only concerned with whether or not a word is relevant to a particular topic, and its relevance to any other topic is of no concern. Further, McDonough simply does not teach the formula enumerated in claim 10. It is submitted therefore that claim 10 is clearly novel over McDonough.

The paper by Kulkarni et al. entitled "On the existence of strongly consistent rules for estimation and classification" clearly does not relate to any apparatus or method of data classification, but is an academic study of the necessary and sufficient conditions needed for the existence of strongly consistent estimators for hypothesis testing on an iid set. While Kulkarni may characterize the existence of strongly consistent estimators, it does not teach the use of a single strangeness value, computed in accordance with the formula in claim 10, for allocating a most likely classification for an item, nor a strength of prediction monitoring device for determining a confidence value of the classification on the basis of the strangeness value of the second most likely potential classification. Clearly therefore claim 10 is novel over Kulkarni as well.

With regard to a combination of Mizuno, Tsuboka, McDonough and Kulkarni, Applicants firstly submit that it is very unlikely that a skilled person would consider all of these references when looking at the aim of the invention, to predict a classification for an unknown item, and to provide a measure of confidence in that classification, valid under the iid assumption. All four references describe a different methodology. Although all of them are generally concerned with accuracy of classification of items, each has a different approach, and none of them are combinable. For example, Mizuno and Tsuboka are not concerned with the iid assumption, and although McDonough and Kulkarni are concerned with that assumption, the difference in the concepts on which they are based means that a combination with other references is unworkable.

Moreover, Applicants submit that none of the documents shows the use of the second most likely classification as the strength of prediction monitoring device to provide a confidence value for the correctness of the predicted classification. Further, none of the documents shows the use of the formula enumerated in the claims. Thus, the combination suggested by the Office could not lead to the present invention as claimed in claim 10, because of the lack of provision of a confidence value using the second most likely classification, and the absence in the art of the recited formula.

Applicants submit therefore that claim 10 is clearly distinguished from all the prior art, and is therefore allowable. Claims 14, 15 and 18 have the same limitations as claim 10, and it is therefore submitted that these claims are also allowable for the same reasons. As claims 12 and 17 are dependent on claims 10 and 15 respectively, it is submitted that these are allowable for the same reasons.

Finally, applicants challenge Office's Official Notice of a fact that a single strangeness value (d(y)) is conventional and well-known. The MPEP clearly states the instances where the Office can issue an Official Notice of fact without documentary evidence.

> Official notice without documentary evidence to support an examiner's conclusion is permissible only in some circumstances. While "official notice" may be relied on, these circumstances should be rare ... . Official notice unsupported by documentary evidence should only be taken by the examiner where the facts asserted to be well-known, or to be common knowledge in the art are capable of instant and unquestionable demonstration as being well-known.

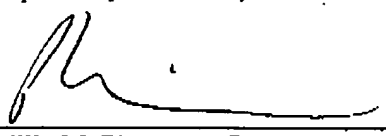
§ 2144.03 MPEP. In the Office action the subject of the Official Notice is unclear. From our understanding the subject could be one of three possibilities. First, it could be the use of the single strangeness value per se. Or, it could be the formula recited in the claims defining the single strangeness value. Or, it could be the whole definition, namely "a single strangeness value valid under the iid assumption for each classification set in dependence on the individual strangeness values of each

example." Therefore, because the subject of the Official Notice of fact is not clearly identified in the action, applicants cannot argue whether it is common knowledge or well-known in the art. Consequently, applicants respectfully challenge the Office's Official Notice of fact and request clarification.

Conclusion

If, in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned attorney.

Respectfully submitted,



Phillip M. Pippenger, Reg. No. 46,055
LEYDIG, VOIT & MAYER, LTD.
Two Prudential Plaza, Suite 4900
180 North Stetson Avenue
Chicago, Illinois 60601-6780
(312) 616-5600 (telephone)
(312) 616-5700 (facsimile)

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